

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-14 (Canceled).

Claim 15 (New): A temperature control element comprising:

a plate having a heater or heat absorber provided on a non-heating side thereof or buried therein; wherein:

a total area of contact between a pedestal provided to support the plate thereon in contact with mainly the non-heating side and the plate including the heater or heat absorber is over 30% of an area of the non-heating side of the plate; and

a sum of surface roughness of the plate and heater or heat absorber at a portion where the plate is in contact with the pedestal and that at a side of the plate at the pedestal side is over $0.05\ \mu\text{m}$.

Claim 16 (New): The element according to claim 15, wherein the pedestal supports the plate in contact with an edge and/or end face at the non-heating side of the plate.

Claim 17 (New): The element according to claim 15, wherein the plate is formed from ceramics.

Claim 18 (New): A temperature controller comprising:

a temperature control element and a pedestal to support the temperature control element thereon inside a casing; wherein:

the temperature control element includes a plate having a heater or heat absorber provided on a non-heating side thereof or buried therein;

a total area of contact between a pedestal provided to support the plate thereon in contact with mainly the non-heating side and the plate including the heater or heat absorber is over 30% of an area of the non-heating side of the plate; and

a sum of surface roughness of the pedestal at a portion where the pedestal is in contact with the plate and heater or heat absorber and surface roughness of the plate and heater or heat absorber at a portion where the plate is in contact with the pedestal side is over 0.05 μm .

Claim 19 (New): The controller according to claim 18, wherein the pedestal supports the plate in contact with an edge and/or end face at the non-heating side of the plate.

Claim 20 (New): The controller according to claim 18, wherein the plate is formed from ceramics.

Claim 21 (New): A waveguide optical module comprising:

a temperature control element supported in air on a pedestal inside a casing; and

an optical waveguide mounted on the temperature control element; wherein:

the temperature control element includes a plate having a heater or heat absorber provided on a non-heating side thereof or buried therein;

a total area of contact between the pedestal provided to support the plate thereon in contact with mainly the non-heating side and the plate including the heater or heat absorber is over 30% of an area of the non-heating side of the plate; and

a sum of surface roughness of the pedestal at a portion where the pedestal is in contact with the plate and heater or heat absorber and surface roughness of the plate and heater or heat absorber at a portion where the plate is in contact with the pedestal and that at a side of the plate at the pedestal side is over 0.05 μm .

Claim 22 (New): A temperature control element comprising:

a plate having a heater or heat absorber provided on the non-heating side thereof or buried therein;

a pedestal provided to support the plate thereon in contact with mainly the non-heating side and plate, and the pedestal and plate are superposed one on another with a thermal insulation laid between them; and wherein

a sum of area of contact between the pedestal and the plate including the heater or heat absorber and superposed on the pedestal with the thermal insulation laid between them is over 30% of an area of the non-heating side of the plate.

Claim 23 (New): The element according to claim 22, wherein the pedestal supports the plate in contact with an edge and/or end face at the non-heating side of the plate.

Claim 24 (New): The element according to claim 22, wherein the plate is formed from ceramics.

Claim 25 (New): A temperature controller comprising:

a temperature control element; and

a pedestal provided to support the plate thereon inside a casing; wherein:

the temperature control element includes a plate having a heater or heat absorber provided on a non-heating side thereof or buried therein;

the pedestal is mainly in contact with the non-heating side of the plate, and the pedestal and plate are superposed one on another with a thermal insulation laid between them; and

a sum of area of contact between the pedestal and the plate including the heater or heat absorber and superposed on the pedestal with the thermal insulation laid between them is over 30% of an area of the non-heating side of the plate.

Claim 26 (New): The controller according to claim 25, wherein the pedestal supports the plate in contact with an edge and/or end face at the non-heating side of the plate.

Claim 27 (New): The controller according to claim 25, wherein the plate is formed from ceramics.

Claim 28 (New): A waveguide optical module comprising:
a temperature control element supported on a pedestal inside a casing; and
an optical waveguide mounted on the temperature control element; wherein:
the temperature control element includes a plate having a heater or heat absorber provided on a non-heating side thereof or buried therein;

the pedestal is mainly in contact with the non-heating side of the plate, and the pedestal and plate are superposed one on another with a thermal insulation laid between them; and

a sum of area of contact between the pedestal and the plate including the heater or heat absorber and superposed on the pedestal with the thermal insulation laid between them is over 30% of an area of the non-heating side of the plate.